

CLAIMS

1. An access method for a multi-layer holographic recording medium in which data pages formed by two-dimensionally arranging a plurality of data blocks for recording data are angle-multiplex-recorded in respective holographic recording layers of a multi-layer holographic recording layer formed by laminating a multitude of said holographic recording layers, the access method for the multi-layer holographic recording medium comprising accessing the data blocks based on a layer number assigned to each of the holographic recording layers, a number assigned to each of the data pages in each of the holographic recording layers, and a number assigned to each of the data blocks in each of the data pages.

15 2. The access method for a multi-layer holographic recording medium according to claim 1, wherein the data pages are shift-multiplex-recorded over the entire area of the holographic recording layers.

20 3. The access method for a multi-layer holographic recording medium according to claim 1, wherein the number assigned to each of the data blocks is identified by a row number and a column number assigned to each of the data blocks in the data pages.

25 4. The access method for a multi-layer holographic recording medium according to claim 2, wherein the number

assigned to each of the data blocks is identified by a row number and a column number assigned to each of the data blocks in the data pages.

5. The access method for a multi-layer holographic recording medium according to any one of claims 1 to 4, wherein the layer number assigned to each of the holographic recording layers is identified by a number assigned to each of two-dimensional optical detectors each of which is provided for a respective one of the holographic recording layers in 10 order to detect the data pages which are angle-multiplex-recorded.

6. The access method for a multi-layer holographic recording medium according to claim 5, wherein the two-dimensional optical detectors are constituted by an imaging 15 device having the same two-dimensional pixel arrangement as the pixel arrangement of the data pages and the data pages are read out on a row-by-row basis by means of the imaging device.

7. The access method for a multi-layer holographic recording medium according to any one of claims 1 to 4, 20 comprising: a process of simultaneously reading a plurality of the data pages which are angle-multiplex-recorded in the same recording area; and a process of shifting to the recording area to be read out.

8. The access method for a multi-layer holographic recording medium according to claim 5, comprising: a process 25

of simultaneously reading a plurality of the data pages which are angle-multiplex-recorded in the same recording area; and a process of shifting to the recording area to be read out.

9. The access method for a multi-layer holographic

5 recording medium according to claim 6, comprising: a process of simultaneously reading a plurality of the data pages which are angle-multiplex-recorded in the same recording area; and a process of shifting to the recording area to be read out.

10. The access method for a multi-layer holographic

10 recording medium according to any one of claims 1 to 4, comprising: a process of successively reading a first data page to a last data page in the holographic recording layer; and a process of changing to the holographic recording layer to be read out.

15 11. The access method for a multi-layer holographic

recording medium according to claim 5, comprising: a process of successively reading a first data page to a last data page in the holographic recording layer; and a process of changing to the holographic recording layer to be read out.

20 12. The access method for a multi-layer holographic

recording medium according to claim 6, comprising: a process of successively reading a first data page to a last data page in the holographic recording layer; and a process of changing to the holographic recording layer to be read out.